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NASA-CE-167728  
**E83-10019**

AP-L2-04116

Fifth Edition

# AgRISTARS

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## AgRISTARS Program Documentation

A Joint Program for  
Agriculture and  
Resources Inventory  
Surveys Through  
Aerospace  
Remote Sensing

June 1982

### AgRISTARS DOCUMENTS TRACKING LIST REPORT

(E83-10019) AGRISTARS DOCUMENTS TRACKING  
LIST REPORT (Lockheed Engineering and  
Management) 90 p HC A05/MF A01 CSCI 05E

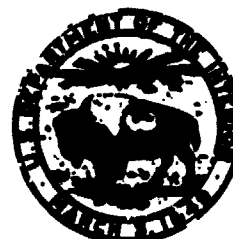
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J. L. Hawkins

Lockheed Engineering and Management  
Services Company, Inc.



Lyndon B. Johnson Space Center  
Houston, Texas 77058

AgRISTARS DOCUMENTS TRACKING LIST REPORT

Job Order 70-223

This report lists all documents that have been published in support  
of the AgRISTARS program.

PREPARED BY

J. L. Hawkins  
Experiment Support Department

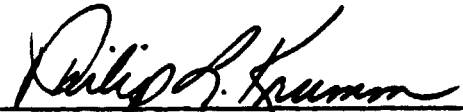
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Prepared By

Lockheed Engineering and Management Services Company, Inc.

Under Contract NAS 9-15800

For

Earth Resources Program Management Office

Space and Life Sciences Directorate

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

LYNDON B. JOHNSON SPACE CENTER

HOUSTON, TEXAS

JUNE 1982

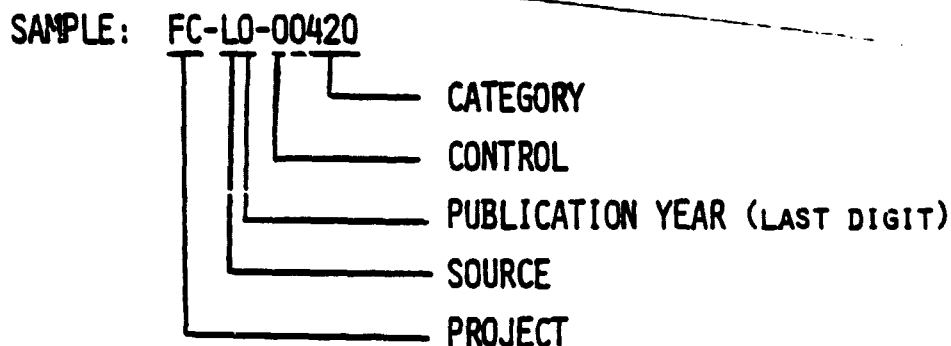
## **PREFACE**

**The AgRISTARS Document Tracking List Report provides a quarterly listing of those documents and related publications that have been issued and placed in the AgRISTARS tracking system.**

**The Tracking List Report provides a catalog, by project, of technical publications arranged by type of document and gives the reference AgRISTARS document numbers, title and date of publication, the issuing organization, and the National Technical Information Service (NTIS) reference number.**

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Identification/Coding System:



Project Listing: AP - AgRISTARS Program Documentation  
EW - Early Warning and Crop Condition Assessment  
\*FC - Foreign Commodity Production Forecasting  
IT - Inventory Technology Development  
YM - Yield Model Development  
SR - Supporting Research  
SM - Soil Moisture  
DC - Domestic Crops/Land Cover  
RR - Renewable Resources Inventory  
CP - Conservation and Pollution  
MU - Multiple (pertaining to two or more projects)

\*As of January 19, 1982, the Foreign Commodity Production Forecasting project's name and objectives were changed. The new name is Inventory Technology Development (ITD).

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Source Listing: A - University of Arkansas, Fayetteville, Arkansas  
B - University of California at Berkeley  
C - University of California Davis Campus  
D - Duke University, Durham, NC  
E - ERIM  
F - Ford Aerospace  
G - Goddard Space Flight Center  
H - University of Houston  
I - IBM  
J - JSC/NASA-Houston  
K - Kansas University (Lawrence, Kansas)  
L - Lockheed  
M - Kansas State University, Manhattan, Kansas  
N - NOAA-Houston  
O - South Dakota State University  
P - Purdue University  
Q - Massachusetts Institute of Technology (Cambridge, MA)  
R - Beltsville Agricultural Research Center (BARC)  
S - University of California Santa Barbara  
T - TAMU (Texas A&M University)  
U - USDA-Houston  
V - University of Washington (Pullman, VA)  
W - George Washington University (Washington, DC)  
X - Elogic  
Y - NASA/NSTL - Earth Resources Laboratory (Mississippi)  
Z - NASA Langley Research Center (Hampton, VA)  
1 - USDA (Columbia, Missouri)  
2 - Montana State University (Bozeman, MT)  
3 - Kentron International, Hampton, VA

Control Codes: C - Baseline Documents  
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T - Tracking Purposes Only

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**AgRISTARS PROGRAM DOCUMENTATION (AP)**

**R. B. Erb, Manager  
Earth Resources Program Management Office/SK  
NASA  
Lyndon B. Johnson Space Center  
Houston, Texas 77058**

**FTS 525-4776**



**PROJECT: AgRISTARS PROGRAM DOCUMENTATION (AP)**

**REPORTS - 00400**

**DOCUMENT NOS.**

**TITLE**

AP-J0-04111	AgRISTARS Annual Report (1980)
AP-L1-04116 First Edition	AgRISTARS Documents Tracking List (February 1981)
AP-L1-04116 Second Edition	AgRISTARS Documents Tracking List Report (June 1981) (Feb.-March-April-May 1981)
AP-L1-04116 Third Edition	AgRISTARS Documents Tracking List Report (Through September 1981)
AP-L2-04116 Fourth Edition	AgRISTARS Documents Tracking List Report (Through March 1982)
AP-L2-04116 Fifth Edition	AgRISTARS Documents Tracking List Report (Through June 1982)
AP-J2-04225	AgRISTARS Annual Report - Fiscal Year 1981 (January 1982)

PROJECT: AP

PLANS - 00600

DOCUMENT NOS.

TITLE

AP-J0-C0628 JSC-17153	AgRISTARS Technical Program Plan (January 15, 1980)
AP-J0-C0628-1 JSC-17153	AgRISTARS Technical Program Plan - Appendix B - Data Management Plan - Volume I (April 11, 1980)
AP-L1-C0630 JSC-17158	AgRISTARS Data Management Plan (May 1981)
AP-J9-C0631 JSC-17395	AgRISTARS Technical Program Plan (April 20, 1979)
AP-J0-C0632 JSC-17396	Management/Organization Plan (January 15, 1980)

**EARLY WARNING AND CROP CONDITION ASSESSMENT (EW)**

**G. O. Boatwright, Project Manager  
USDA/SEA  
1050 Bay Area Blvd.  
Houston, Texas 77058  
Phone: FTS 525-5244**

PROJECT: EARLY WARNING AND CROP CONDITION ASSESSMENT (EW)

INSTRUCTIONS - 00100

DOCUMENT NOS.

TITLE

MU-JO-0101 JSC-16842	NTIS: 82N19628. Soil Moisture/Early Warning and Crop Condition Assessment Interface Control Document (August 1980)
MU-JO-0102 JSC-16843	Yield Model Development/Early Warning and Crop Condition Assessment Interface Control Document (August 1980)

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PROJECT: EW

REPORTS - 00400

DOCUMENT NOS.

TITLE

EW-N1-04042 JSC-17112	NTIS: 81N31596. Meteorological Satellite Data - A Tool to Describe the Health of the World's Agriculture (February 1981)
EW-U1-04052 JSC-17118	NTIS: 81N28496. Hand-Held Radiometry - A Set of Notes Developed for Use at the Workshop on Hand-Held Radiometry (October 1980)
EW-U1-04068 JSC-17125	NTIS: 81N29500. Soil Moisture Inferences from Thermal Infrared Measurements of Vegetation Temperatures (March 1981)
EW-U1-04074 JSC-17130	NTIS: 81N28497. Large Area Application of a Corn Hazard Model (March 1981)
EW-N1-04075 JSC-17131	NTIS: 81N29506. The Characteristics of TIROS, GOES, DMSP, and Landsat Systems (March 1981)
EW-N1-04076 JSC-17132	NTIS: 81N29505. The Environmental Vegetative Index - A Tool Potentially Useful for Arid Land Management (March 1981)
EW-U1-04077 JSC-17133	NTIS: 81N33566. Canopy Temperature As A Crop Water Stress Indicator (March 1981)
EW-L1-04101 JSC-17251 LEMSCO-16204	NTIS: 82N21635. Registration Verification of SEA/AR Fields (May 1981)
EW-U1-04103 JSC-17143	Plant Cover, Soil Temperature, Freeze, Water Stress, and Evapotranspiration Conditions (February 1981)
EW-N1-04104 JSC-17144	NTIS: 82N22588. Utilization of Meteorological Satellite Imagery for World-wide Environmental Monitoring: The Lower Mississippi River Flood of 1979 (May 1981)
EW-U1-04115 JSC-17157	NTIS: 82N22589. Environmental Factors During Seed Development and Their Influence on Pre-Harvest Sprouting in Wheat (May 1981)
EW-U1-04119 JSC-17399	A Meteorological Driven Maize Stress Indicator Model (July 1981)
EW-21-04124 NAS 9-16007	NTIS: 82N22544. Review of Literature Relating to the Modeling of Soil Temperature Based on Meteorological Factors (July 1981)
EW-L1-04134 JSC-17413 LEMSCO-16844	NTIS: 82N21657. A Look At the Commonly Used Landsat Vegetation Indices (October 1981)

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EW-U1-04144 JSC-17420	Airborne Observed Solar Elevation and Row Direction Effects on the Near-IR/Red Ratio of Cotton (August 1981)
EW-R1-04147	Agricultural Research Service Research Highlights in Remote Sensing for Calendar Year 1980 (July 1981)
EW-J1-04150 JSC-17424	NTIS: DA22592. An Empirical, Graphical, and Analytical Study of the Relationships Between Vegetative Indices (October 1981)
EW-U1-04185 T-4629H	Predicting the Timing and Potential of the Spring Emergence of Overwintered Populations of Heliothis Spp (April 1981)
EW-L1-04190 JSC-17437 LEMSCO-17312	Area Estimation of Environmental Phenomena from NOAA-n Satellite Data (October 1981)
EW-U1-04208 JSC-17797	A Meteorologically Driven Grain Sorghum Stress Indicator Model (November 1981)
EW-U1-04212 JSC-17801	Evaluation of the Doraiswamy-Thompson Winter Wheat Crop Calendar Model Incorporating a Modified Spring Restart Sequence (November 1981)
EW-L1-04215 JSC-17803 LEMSCO-17262	Two-Channel Metsat to Universal Format Conversion Program (MET2CH2UF) User's Guide (December 1981)
EW-L1-04216 JSC-17804 LEMSCO-17331	Program RAWPLT User Guide: Plotting of Landsat, Sun-Angle, and Atmospheric - Corrected Data Versus Acquisition Date (April 1982)
EW-L2-04223 JSC-17809 LEMSCO-17544	A Review of Remote Sensing and Grasslands Literature (February 1982)
EW-U2-04243 JSC-17817	Increase of Cold Tolerance in Cotton Plant ( <u>Gossypium Hirsutum L.</u> ) by Mepiquat Chloride (February 1982)
EW-U2-04244 JSC-17818	Reflectance Measurements of Cotton Leaf Senescence Altered by Mepiquat Chloride (February 1982)
EW-L2-04248 JSC-17821 LEMSCO-17307	Preliminary Study for Correlation of Meteorological Satellite Opening (METSAT) Data With Landsat Data (March 1982)
EW-U2-04250 JSC-17823	Reflectance Differences Between Target and Torch Rape Cultivars (March 1982)

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PROJECT: EW

REPORTS - 00400

DOCUMENT NOS.

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EW-U2-04251 JSC-17824	Leaf Reflectance - Nitrogen - Chlorophyll Relations Among Three So. Texas Woody Rangeland Plant Species (February 1982)
EW-U2-04252 JSC-17825	Reflectance of Litter Accumulation Levels at 0.5 to 2.5um Waveband (March 1982)
EW-U2-04253 JSC-17826	Optical Parameters of Leaves of Weed Species (March 1982)
EW-U2-04254 JSC-17827	Use of Landsat 2 Data Technique to Estimate Silverleaf Sunflower Infestation (February 1982)
EW-J2-04276 JSC-17822	Semi-Annual Program Review Presentation to Level 1, Interagency Coordination Committee (April 19, 1982)
EW-U2-04298 JSC-18241	Determination of Growth and Water Stress in Wheat by Various Vegetation Indices Through a Clear and a Turbid Atmosphere (May 1982)
EW-L2-04303 JSC-18243 LEMSCO-17383	Advanced Very High Resolution Radiometer (AVHRR) Data Evaluation for Use in Monitoring Vegetation, Volume 1 - Channels 1 and 2 (May 1982)
EW-U2-04319 JSC-18254	Influence of Environmental Factors During Seed Development and After Full-Ripeness on Pre-Harvest Sprouting in Wheat (June 1982)
EW-U2-04320 JSC-18255	Estimating Total Standing Herbaceous Biomass Production with Landsat MSS Digital Data (June 1982)
EW-U2-04327 JSC-18258	Winter Wheat Stand Density Determination and Yield Estimates from Handheld and Airborne Scanners (June 1982)
EW-U2-04328 JSC-18259	Optical Parameters of Leaves of Seven Weed Species (June 1982)
EW-T2-04329 NAS 9-16556	"Semi-Annual Progress Report Development of An Early Warning System of Crop Moisture Conditions Using Passive Microwave" (April 1982)

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PROJECT: EW

PLANS - 00600

DOCUMENT NOS.

TITLE

EW-J0-C0617  
JSC-16852

Early Warning/Crop Condition Assessment Project  
Implementation Plan (1980)

EW-J1-C0622  
JSC-16862

Early Warning/Crop Condition Assessment Project  
Implementation Plan (1981)

EW-U1-C0649  
JSC-17800

Early Warning/Crop Condition Assessment Project  
Implementation Plan (1982)



PROJECT: EW

PROCEDURES - 00700

DOCUMENT NOS.

TITLE

EW-U1-00700 JSC-16367	Program Development and Maintenance Standards (June 1980)
EW-L0-00701 JSC-16373 LEMSCO-15325	NTIS: 81N13433. Limited Area Coverage/High Resolution Picture Transmission LAC/HRPT, User's Manual Tape Conversion Processor (June 1980)
EW-L0-00702 JSC-16374 LEMSCO-15326	NTIS: 81N13428. Limited Area Coverage/High Resolution Picture Transmission, LAC/HRPT, IJ Grid Pixel Extraction Processor User's Manual (June 1980)
EW-L0-00703 JSC-16375 LEMSCO-15327	NTIS: 81N13429. Limited Area Coverage/High Resolution Picture Transmission, LAC/HRPT, Vegetation Index Calculation Processor User's Manual (June 1980)
EW-L0-00704 JSC-16381 LEMSCO-15356	NTIS: 81N13417. Tape Merge/Crop Processor (August 1980)
EW-L0-00705 JSC-16382 LEMSCO-15357	NTIS: 81N13430. EROS to Universal Tape Conversion Processor (August 1980)
EW-L0-00706 JSC-16821 LEMSCO-15608	NTIS: 81N29501. Conversion of SPU-Universal Disk File to JSC-Universal Tape Storage CONVRT User's Guide (September 1980)
EW-L0-00707 JSC-16833 LEMSCO-15692	NTIS: 81N21418. Patch Image Processor User's Manual (October 1980)
EW-L0-00708 JSC-16854 LEMSCO-15114	Skip Subsampling Processor User's Manual (November 1980)
EW-L1-00709 JSC-16855 LEMSCO-15119	NTIS: 82N22541. Computer Program Documentation For the Patch Subsampling Processor (January 1981)
EW-L1-00711 JSC-17114	NTIS: 82N19607. Wheat Stress Indicator Model, Crop Condition Assessment Division (CCAD) Data Base Interface Drives, User's Manual (February 1981)
EW-L1-00713 JSC-17117	NTIS: 85N15492. Winterkill Indicator Model, Crop Condition Assessment Division (CCAD) Data Base Interface Driver, User's Manual (March 1981))

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PROJECT: EW

PROCEDURES - 00700

DOCUMENT NOS.

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EW-L1-00716  
JSC-17397  
LEMSCO-16667

General Graphing System (GRAPH) User Guide (June 1981)

EW-L1-00732  
JSC-17793  
LEMSCO-17179

NTIS: 82N21652. Wheat Stress Indicator Model, Early Warning (EW) Data Base Interface Driver, User's Manual (November 1981)

EW-L1-00733  
JSC-17794  
LEMSCO-17178

NTIS: 82X74779. Winterkill Indicator Model, Early Warning (EW) Data Base Interface Driver, User's Manual (November 1981)

EW-L1-00734  
JSC-17795  
LEMSCO-17193

NTIS: 82X74780. Two-Layer Soil Moisture Model, Early Warning (EW) Data Base Interface Driver, User's Manual (November 1981)

EW-L2-00741  
JSC-18225  
LEMSCO-18055

Flood Damage Assessment Processor's, Early Warning, User's Manual (April 1982)

EW-L2-00743  
JSC-18238  
LEMSCO-18206

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- Final Report - Detection and Measurement of Changes in the Production and Quality of Renewable Final Dry Matter Accumulation. NASA Tech. Memo. (submitted November 1980).
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**INVENTORY TECHNOLOGY DEVELOPMENT (ITD)**

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PROJECT: INVENTORY TECHNOLOGY DEVELOPMENT

TASK DESCRIPTIONS - 00300

DOCUMENT NOS.

TITLE

MU-L1-00300	NTIS: 82N15493. ERSYS-SPP Access Method Subsystem Design Specification (September 1980)
FC-L1-00310	NTIS: 82X74791. "As-Built" Design Specification for Proportion Estimate Processor (November 1981)
FC-L1-00311	NTIS: 82X74793. "As-Built" Design Specification for a F1A Modified Display Subsystem (November 1981)

PROJECT: IT

REPORTS - 00400

DOCUMENT NOS.

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FC-L0-00420  
JSC-16301  
LEMSCO-14084

NTIS: 80N23744. Corn/Soybeans Decision Logic:  
Improvements and New Crops (January 1980)

FC-L0-00422  
JSC-16338  
LEMSCO-14320

NTIS: 80N26718. Evaluation of Transitionn Year Canadian  
Test Sites (April 1980)

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JSC-16339  
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NTIS: 81N12516. Estimation of Within-Stratum Variance  
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JSC-16368  
LEMSCO-14808

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JSC-16371

NTIS: 81N12517. Stratum Variance Estimation for Sample  
Allocation in Crop Surveys (July 1980)

FC-L0-00472  
JSC-16752  
LEMSCO-14598

Evaluation of the Procedure for Separating Barley From  
Other Spring Small Grains (August 1980)

PROJECT: IT

REPORTS - 00400

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FC-LO-00479  
JSC-16379  
LEMSCO-14056

NTIS: 82N21651. Transition Year Labeling Error  
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NTIS: 82N19631. Corn/Soybeans Decision Logic Development  
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FC-LO-00486  
JSC-16815

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LEMSCO-15116

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FC-LO-04014  
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LEMSCO-15612

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IT-LO-04020  
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LEMSCO-15643

Selection of USSR Foreign Similarity Region  
(January 1982)

FC-LO-04027  
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LEMSCO-15118

NTIS: 81N21419. Identification of USSR Indicator Regions  
(September 1980)

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MU-L1-04055  
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PROJECT: IT

REPORTS - 00400

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FC-L1-04096 JSC-17138 LEMSCO-16573	1980 U.S. Corn and Soybeans Exploratory Experiment Final Report (October 1981)
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MU-L1-04100 JSC-17365	PRELIMINARY CATALOG: Ground Data Summary Data Acquisition for 1980 (May 1981)
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FC-L1-04109 JSC-17151 LEMSCO-16575	Fiscal Year 1981 U.S. Corn and Soybeans Pilot Experiment Plan, Phase I (December 1981)
FC-J1-04117	FCPF Quarterly Review (March 11, 1981)
FC-L1-04120 JSC-17401 LEMSCO-16663	NTIS: 82N21655. Sample Selection in Foreign Similarity Regions for Multicrop Experiment (August 1981)
FC-P1-04121 NAS 9-15466	NTIS: 82N20590. Evaluation of a Segment-Based Landsat Full-Frame Approach to Crop Area Estimation (June 1981)
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PROJECT: IT

REPORTS - 00400

DOCUMENT NOS.

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IT-L1-04132 JSC-17408 LEMSCO-16874	Selection of Argentine Indicator Region (March 1981)
FC-L1-04142 JSC-17417 LEMSCO-16929	Description of Historical Crop Calendar Data Base Developed to Support FCPF Project Experiments (October 1981)
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FC-L1-04155 JSC-17427 LEMSCO-15409	NTIS: 82N21654. Development of Rotation Sample Designs for the Estimation of Crop Acreages (September 1981)
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FC-J1-04176 JSC-17435	NTIS: 82N21648. A Gradient Model of Vegetation and Climate Utilizing NOAA Satellite Imagery Phase I: Texas Transect (August 1981)
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FC-L1-04192 JSC-17440 LEMSCO-16935	Application of Thermal Model for Pan Evaporation to the Hydrology of a Defined Medium, The Sponge (November 1981)
FC-P1-04197 NAS 9-15466	NTIS: 82N21673. Determination of the Optimal Level for Combining Area and Yield Estimates (October 1981)
IT-J1-04199 JSC-17785	NTIS: 82X75092. Information Presented at the Quarterly Project Technical Interchange Meeting--July 9-10, 1981 (December 1981)
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IT-L2-04228 JSC-17814 LEMSCO-17153	General Multiyear Aggregation Technology: Methodology and Software Documentation (March 1982)

PROJECT: IT

REPORTS - 00400

DOCUMENT NOS.

TITLE

FC-L2-04229 JSC-17815 LEMSCO-16633	Evaluation of the U.S./Canada Wheat and Barley Exploratory Experiment Shakedown Test Analyst Labeling Results (December 1981)
IT-E2-04233 NAS 9-16538	Augmentation of Landsat MSS Data by SEASAT-SAR for Agricultural Application (April 1982)
IT-E2-04235 NAS 9-16538	Association of Spectral Development Patterns with Development Stages of Corn (February 1982)
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FC-T2-04261	Incorporating Partially Identified Sample Segments into Acreage Estimation Procedures: Estimates Using Only Observations from the Current Year (December 1981)
IT-J2-04262 JSC-17828	Presentation of Information of the Inventory Technology Development Project Quarterly Technical Interchange Meeting, March 24-25, 1982 (April 1982)
IT-J2-04267 JSC-17830	Semi-Annual Program Review Presentation to Level 1, Interagency Coordination Committee (April 19, 1982)
IT-J2-04282 JSC-18231	Research in Satellite-Aided Crop Inventory and Monitoring (April 1982)
IT-J2-04283 JSC-18232	An Agricultural Analysis (March 1982)
IT-J2-04296 JSC-18239	Research Advances in Satellite-Aided Crop Forecasting (September 1982)
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IT-L2-04304 JSC-18244 LEMSCO-17755	Software for the Grouped Optimal Aggregation Technique (February 1982)
IT-E2-04311 NAS 9-16538	Development, Implementation and Evaluation of Satellite-Aided Agricultural Monitoring System - Semi-Annual Report (June 1982)
IT-T2-04323 NAS 9-14689	Missing Observations in Multiyear Rotation Sampling Designs (December 1981)
IT-U2-04332 AGES No. 820526	Construction of a Remotely Sensed Area Sampling Frame for Southern Brazil (June 1982)

PROJECT: IT

MINUTES - 00500

DOCUMENT NOS.

TITLE

FC-J0-00501  
JSC-16356

Minutes of the Semi-Annual Formal Project Manager's Review,  
February 13, 1980.

FC-J0-00502  
JSC-16823

NTIS: 82N19614. Minutes of the Semi-Annual Formal Project  
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Reports of FY80 Experiments (September 24, 1980)

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JSC-17787

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Quarterly Technical Interchange Meeting (September 30, 1981)

PROJECT: IT

PLANS - 00600

<u>DOCUMENT NOS.</u>	<u>TITLE</u>
FC-JO-00600 JSC-16336	U.S./Canada Wheat and Barley Exploratory Labeling Experiment Implementation Plan (January 1980)
FC-LO-00603 JSC-16005 LEMSCO-13481	The Development of a Sampling Strategy for Multicrop Estimation: A Technical Plan (November 1979)
FC-JO-C0604 JSC-16344	Foreign Commodity Productionn Forecasting Project Implementation Plan (January 15, 1980)
FC-BO-00605 NAS 9-14565	Examination of New Sampling and Aggregation Approaches (March 1980)
FC-LO-00608 JSC-16363 LEMSCO-14943	Configuration Management Plan (June 1980)
FC-LO-00609 JSC-16364 LEMSCO-15402	NTIS: 81N12513. Supplemental U.S./Canada Wheat and Barley Exploratory Experiment Implementation Plan: Evaluation of a Procedure 1A Technology (June 1980)
FC-JO-00610 JSC-16365	World Multicrop Test Site Overflights for 1980 Crop Year Implementation Plan (June 1980)
FC-JO-00611 JSC-16812 LEMSCO-15323	NTIS: 82N15494. U.S./Canada Wheat and Barley Crop Calendar Exploratory Experiment Implementation Plan (September 1980)
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FC-JO-C0614 JSC-16828	FCPF Implementation Plan (FY81 & FY82) (October 1980)
FC-L1-00633 JSC-17405 LEMSCO-16868	Fiscal Year 1981-82 U.S./Canada Spring Small Grains Experiment Plan (December 1981)
FC-L1-00634 JSC-17407 LEMSCO-16566	Technical Plan for Developing and Testing a Cloud Cover/ Acquisition History Simulator (July 1981)



PROJECT: IT

PLANS 00600

FC-L1-00635  
JSC-17409  
LEMSCO-16933

NTIS: 82X74786. Technical Plan for Testing The Automated  
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FC-L1-00639  
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Plan for 1981/82 Crop Year (September 1981)

FC-J1-C0640  
JSC-17425

FCPF Project Implementation Plan for Fiscal Years 1982  
and 1983 (September 30, 1981)

PROJECT: IT

PROCEDURES - 00700

DOCUMENT NOS.

TITLE

FC-L0-00700  
JSC-16399  
LEMSCO-14080

NTIS: 80N30862. Maximal Analysis Labeling Procedure  
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FC-E1-00712  
NAS 9-15476

NTIS: 81N29504. User's Guide for the U.S. Baseline Corn and  
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FC-L1-00714  
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LEMSCO-16850

NTIS: 82N21645. FCPF Project Communications Documentation  
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JSC-17813

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PROJECT: YIELD MODEL (YM)

INSTRUCTIONS - 00100

DOCUMENT NOS.

TITLE

MU-J0-00100  
JSC-16841

NTIS: 82N19629. Yield Model Development/Soil Moisture  
Interface Control Document (November 1980)

MU-J0-00102  
JSC-16843

Yield Model Development/Early Warning and Crop Condition  
Assessment Interface Control Document (November 1980)

PROJECT: YM

REPORTS - 00400

DOCUMENT NOS.

TITLE

YM-I1-04095 USDA/ESS Staff AGESS810304	Evaluation of "Straw Man" Model 1, The Simple Linear Model for Soybean Yields in Iowa, Illinois, and Indiana (March 1981)
YM-N1-04198	NTIS: 82N21656. Development of a Surface Isolation Estimation Technique Suitable for Application of Polar-Orbiting Satellite Data (November 1981)
YM-U2-04245 AGES820428	Estimating Daily Advective Contributions to Potential Evapotranspiration (May 1982)
YM-U2-04281 JSC-18229	A Model for the Simulation of Growth and Yield in Winter Wheat (August 1981)
YM-U2-04286 JSC-18233	Evaluation of the Williams-Type Spring Wheat Model in North Dakota and Minnesota (January 1982)
YM-U2-04287 JSC-18234	Evaluation of the Williams-Type Model for Barley Yields in North Dakota and Minnesota (December 1981)
YM-U2-04288 JSC-18235	Evaluation of the CEAS Model for Barley Yields in North Dakota and Minnesota (December 1981)
YM-U2-04289 JSC-18236	Comparison of CEAS and Williams-Type Models for Spring Wheat Yields in North Dakota and Minnesota (March 1982)
YM-U2-04290 JSC-18237	Comparison of the CEAS and Williams-Type Barley Yield Models for North Dakota and Minnesota (March 1982)
YM-12-04306 JSC-18245	Second Generation Crop Yield Models Review (March 1982)

PROJECT: YM

PLANS - 00600

DOCUMENT NOS.

TITLE

YM-J0-C0616  
JSC-16851

Yield Model Development Project Implementation Plan (1980)

YM-J1-C0618  
JSC-16857

NTIS: 81N32577. Yield Model Development Implementation Plan  
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JSC-17436

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FY82 and 83

PROJECT: YM

PROCEDURES - 00700

DOCUMENT NOS.

TITLE

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JSC-17808

Gridded Meteorological Data Extraction System, GMDES,  
User's Guide (November 1981)

YM-U2-00737  
JSC-17811

Extraction Procedures and Requirements for Gridded Air  
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YM-U2-00740  
JSC-18228

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**SUPPORTING RESEARCH (SR)**

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PROJECT: SUPPORTING RESEARCH (SR)

REQUIREMENTS - 00200

DOCUMENT NOS.

TITLE

SR-11-00201  
NAS 9-14350

Crop Calendar Preprocessor Requirements Document (May 1981)



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TASK DESCRIPTIONS - 00300

<u>DOCUMENT NOS.</u>	<u>TITLE</u>
MU-I1-00300	NTIS: 85N15493. ERSYS-SPP Access Method Subsystem Design Specification (September 1980)
SR-L1-00301 JSC-17389 LEMSCO-16676	NTIS: 82N21637. "As-Built" Design Specification for UNIV for VEC (May 1981)
SR-L1-00302 JSC-17390 LEMSCO-16677	NTIS: 82N21642. "As-Built" Design Specification for PARCLS (May 1981)
SR-L1-00303 JSC-17370 LEMSCO-16648	NTIS: 82N22539. "As-Built" Design Specification for the CLASFYT Program (May 1981)
SR-L1-00304 JSC-17369 LEMSCO-16649	NTIS: 82N21644. "As-Built" Design Specification for the CLASFYG Program (May 1981)
SR-L1-00305 JSC-17371 LEMSCO-16650	NTIS: 82N21641. "As-Built" Design Specification for PARHIS (April 1981)
SR-L1-00306 JSC-17037 LEMSCO-15937	"As-Built" Design Specification for Map (SGMAP) Program (December 1980)
SR-L1-00307 JSC-17231 LEMSCO-16300	NTIS: 82N21643. "As-Built" Design Specification for MISMAP (February 1981)
SR-L1-00308 JSC-17305 LEMSCO-16544	NTIS: 82N22543. "As-Built" Design Specification for PARPLT (April 1981)
SR-L1-00309 JSC-17414 LEMSCO-16854	Description of the Fortran Implementation of the Spring Grains Planting Date Distribution Model (August 1981)
SR-L2-00312 JSC-17810 LEMSCO-17606	NTIS: 82X74790. "As-Built" Design Specification for GTPURE (January 1982)
SR-I2-00313 NAS 9-14350	NTIS: 82X74792. ERSYS Registration Subsystem Detailed Design Specification (September 1981)
SR-I2-00314 JSC-16921 NAS 9-14350	ERSYS User Interface Subsystem Design Specification (October 1981)

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REPORTS - 00400

DOCUMENT NOS.

TITLE

SR-I9-00400 NAS 9-14350	Experimental Design Considerations for Analyst and Segment Effects in Crop Proportion Estimates (November 1979)
SR-I9-00401 NAS 9-14350	Crop Classification with Landsat Multispectral Scanner Data II (November 1979)
SR-T9-00402 NAS 9-14689	NTIS: 80N18526. FINAL REPORT: Development and Evaluation of Clustering Procedures (November 1979)
SR-J9-00403	Informal Progress Review (November 30, 1979)
SR-E9-00404 <sub>1</sub> NAS 9-15476 <sub>1</sub>	NTIS: 80N18506. FINAL REPORT: Development of Landsat Based Technology for Crop Inventories (December 1979)
SR-E9-00404 <sub>2</sub> NAS 9-15476 <sub>2</sub>	NTIS: 80N18507. FINAL REPORT: Development of Landsat Based Technology for Crop Inventories: Appendices (December 1979)
SR-L9-00405 JSC-16320 LEC-13791	NTIS: 80N23748. Crop Yield Literature Review for AgRISTARS Crop Corn/Soybeans/Wheat/Barley/Sorghum/Rice/Cotton/Sunflowers (December 1979)
SR-L0-00407 JSC-13773 LEC-14250	NTIS: 80N29824. Composition and Assembly of A Spectral Data Base for Corn and Soybean Multicrop Segments (June 1980)
SR-L0-00408 JSC-16298 LEC-14077	Quantitative Estimation of Plant Characteristics Using Spectral Measurement: A Survey of The Literature (January 1980)
SR-L9-00409 JSC-16088 LEC-13722	NTIS: 82N19610. Crop Phenology Literature Review for Corn, Soybean, Wheat, Barley, Sorghum, Rice, Cotton, and Sunflower (November 1979)
SR-P9-00410 NAS 9-15466 Vol. I	NTIS: 80N23740. FINAL REPORT: Agricultural Scene Understanding and Supporting Field Research (November 1979)
SR-P9-00411 NAS 9-15466 Vol. II	NTIS: 80N23741. FINAL REPORT: Processing Techniques Development Part 1: Crop Inventory Techniques (November 1979)
SR-P9-00412 NAS 9-15466 Vol. III	NTIS: 80N23742. FINAL REPORT: Processing Techniques Development Part 2: Data Preprocessing and Information Extraction Techniques (November 1979)

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REPORTS - 00400

<u>DOCUMENT NOS.</u>	<u>TITLE</u>
SR-P9-00413 NAS 9-15466 Vol. IV	NTIS: 80N23743. FINAL REPORT: Computer Processing Support (November 1979)
SR-P9-00414 NAS 9-15466	NTIS: 80N30823. FINAL REPORT: Annual Technical Summary (November 1979)
SR-L0-00416 JSC-16309 LEMSC0-14070	NTIS: 80N23726. Variability of Crop Calendar Stage Dates (January 1980)
SR-L0-00417 JSC-16273 LEC-14069	NTIS: 80N23747. Composition and Assembly of a Spectral Data Base for Transition Year Spring Wheat Blind Sites, Volume I (January 1980)
SR-L0-00418 JSC-13776 LEMSC0-13499	Interpretation of Landsat Digital Data Using a Cubic Color Model Based on Relative Energies (February 1980)
SR-L0-00419 JSC-16335 LEMSC0-14310	Utilization of Spectral-Spatial Information In The Classification of Imagery Data (June 1980)
SR-J0-00421	January 1980 Supporting Research Task Manager's Report (January 31, 1980)
SR-L0-00424 JSC-16334 LEMSC0-14278	NTIS: 80N26735. Label Identification From Statistical Tabulation (LIST) Temporal Extendability Study (February 1980)
SR-L0-00425 JSC-16341 LEMSC0-14357	NTIS: 80N30861. A Labeling Technology for Landsat Imagery (May 1980)
SR-I0-00426 NAS 9-14350	FINAL REPORT: Procedure M System Description Document (October 1979)
SR-L0-00427 JSC-16342 LEMSC0-14356	NTIS: 80N30856. Estimation of Probabilities of Label Imperfections and Correction of Mislabeled (March 1980)

PROJECT: SR

REPORTS - 00400

DOCUMENT NOS.

TITLE

SR-LO-00430 JSC-16345 LEMSCO-14390	NTIS: 80N27764. Label Identification from Statistical Tabulation (LIST) Application of RIDIT Analysis (March 1980)
SR-PO-00431 NAS 9-15466	NTIS: 80N26721. Physiocochemical, Site, and Bidirectional Reflectance Factor Characteristics of Uniformly Moist Soils (February 1980)
SR-B9-00434 NAS 9-14565	FINAL REPORT: Development of AI Procedures for Dealing with the Effects of Episodal Events on Crop Temporal-Spectral Response and Development of AI Guidelines for Corn & Soybean Labeling (November 1979)
SR-JO-00435 JSC-16349	Semi-Annual Project Management Report (March 1980)
SR-JO-00438 JSC-16353	NTIS: 80N30860. AgRISTARS Cropping Practices and Crop Characteristics Based on 1979 ESCS Observations (April 1980)
SR-LO-00440 JSC-16355 LEMSCO-14597	NTIS: 80N29820. Some Approaches to Optimal Cluster Labeling of Aerospace Imagery (April 1980)
SR-LO-00442 JSC-16358 LEMSCO-14670	NTIS: 80N30863. An Exploratory Study to Develop a Cluster-Based Area Estimation Procedure (May 1980)
SR-PO-00443 NAS 9-15466	NTIS: 80N26716. Contextual Classification of Multispectral Image Data (January 1980)
SR-PO-00444 NAS 9-14566	NTIS: 80N26723. Context Distribution Estimation for Contextual Classification of Multispectral Image Data (April 1980)
SR-IO-00445 NAS 9-14350	Spatial-Spectral Procedure Development: The Purity Experiment (April 1980)
SR-LO-00450 JSC-16359 LEMSCO-14673	Crop Calendars for the U.S., USSR, and Canada in Support of The Early Warning Project (July 1980)
SR-IO-00452 NAS 9-14350	Purity Data Report (April 14, 1980)

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REPORTS - 00400

DOCUMENT NOS.

TITLE

SR-LO-00453  
JSC-16361  
LEMSCO-14355

NTIS: 80N30871. Evaluation of Bayesian Sequential  
Proportion Estimation Using Analyst Labels (May 1980)

SR-PO-00454  
NAS 9-15466

NTIS: 80N29814. Pixel Labeling by Supervised Probabilistic  
Relaxation (February 1980)

SR-PO-00455  
NAS 9-15466

On The Accuracy of Pixel Relaxation Labeling (March 1980)

SR-LO-00456  
JSC-16538  
LEMSCO-14672

NTIS: 80N30870. Evaluating the Use of Analyst Labels in  
Maximum Likelihood Cluster Proportion Estimation (April 1980)

SR-JO-00457  
JSC-16504

Interpolation of Daily and Monthly Precipitation and  
Temperature Using the Wagner Variational Analysis Technique  
(March 1980)

SR-PO-00458  
NAS 9-15466

Effects of Management Practices on Reflectance of Spring  
Wheat Canopies (May 1980)

SR-EO-00459  
NAS 9-15476

An Algorithm for Estimating Crop Calendar Shifts of Spring  
Small Grains Using Landsat Spectral Data (June 1980)

SR-LO-00460  
JSC-16362

NTIS: 80N29819. Sampling of Rectangular Regions (June 1980)

SR-IO-00461  
NAS 9-14350

Multispectral Data Analysis Based on Ground Truth Crop  
Classes (June 1980)

SR-LO-00465  
JSC-16754  
LEMSCO-15163

Proportion Estimation Using Prior Cluster Purities  
(July 1980)

SR-LO-00467  
JSC-16370  
LEMSCO-15179

Minimum Variance Geographic Sampling (July 1980)

SR-PO-00469  
NAS 9-15466

NTIS: 80N33830. A Multispectral Data Simulation  
Technique (July 1980)

SR-LO-00475  
JSC-16376  
LEMSCO-14676

Canadian Crop Calendars in Support of the Early Warning  
Project (August 1980)

PROJECT: SR

REPORTS - 00400

DOCUMENT NOS.

TITLE

SR-LO-00476 JSC-16377 LEMSCO-15115	Preliminary Evaluation of the Environmental Research Institute of Michigan Crop Calendar Shift Algorithm for Estimation of Spring Wheat Development Stage (September 1980)
SR-HO-00477 NAS 9-14689	The Numerical Trials of HISSE (August 1980)
SR-LO-00478 JSC-16378 LEMSCO-14807	NTIS: 881N29498. The Multicategory Case of the Sequential Bayesian Pixel Selection and Estimation Procedure (November 1980)
SR-JO-00481 JSC-16381	A Semi-Automatic Technique for Multitemporal Classification of a Given Crop (July 1980)
SR-UO-00482 JSC-16383	Taxonomic Classification of World Soil Map Units Occurring in Selected Brazilian States with Representative U.S. Soil Series and Numerical Rating of Physical and Chemical Soil Properties Significant to Crop Production (September 1980)
SR-LO-00483 JSC-16384 LEMSCO-15358	NTIS: 82N22590. Probabilistic Cluster Labeling of Imagery Data (September 1980)
SR-LO-00484 JSC-16813 LEMSCO-15033	Normal Crop Calendars Volume I: Assembly and Application of Historical Crop Data to a Standard Product (August 1980)
SR-LO-00485 JSC-16814 LEMSCO-15034	Normal Crop Calendars Volume II: The Spring Wheat States of Minnesota, Montana, North Dakota, and South Dakota (August 1980)
SR-JO-00488 JSC-16816	Development Stage Estimation of Corn from Spectral Data - An Initial Model (August 1980)
SR-JO-00489 JSC-16817	Illustration of Year-to-Year Variation in Wheat Spectral Profile Crop Growth Curves (August 1980)
SR-PO-00491 NAS 9-15466	Contextual Classification of Multispectral Imagery Data Approximate Algorithm (August 1980)
SR-HO-00492 NAS 9-14689	On the Existence, Uniqueness, and Asymptotic Normality of a Consistent Solution of the Likelihood Equations for Nonidentically Distributed Observations-Applications to Missing Data Problems (September 1980)

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REPORTS - 00400

DOCUMENT NOS.

TITLE

SR-PO-00494 NAS 9-15466	An Assessment of Landsat Data Acquisition History by Identification and Area Estimation of Corn and Soybeans (June 1980)
SR-UO-00497 JSC-16824	NTIS: 82N19633. Taxonomic Classification of World Map Units in Crop Producing Areas of Argentina and Brazil with Representative U.S. Soil Series and Major Land Resource Areas in Which They Occur (October 1980)
SR-JO-00498 JSC-16825	Spectral Reflectance of Soils: A Literature Review (August 1980)
SR-LO-00499 JSC-16826 LEMSCO-15305	NTIS: 81N31598. Classification of Wheat: Badhwar Profile Similarity Techniques (October 1980)
SR-JO-04001 JSC-16829	A Semi-Automatic Technique for Multitemporal Classification of a Given Crop of a Landsat Scene (October 1980)
SR-LO-04002 JSC-16830 LEMSCO-14640	NTIS: 82N19634. Preliminary Evaluation of Spectral, Normal, and Meteorological Crop Stage Estimation Approaches (October 1980)
SR-JO-04007 JSC-16832 LEMSCO-14860	NTIS: 81N33564. Maximum Likelihood Estimation for Mixture Models (October 1980)
SR-JO-04011 JSC-16836	Semi-Annual Project Management Report Program Review Presentation to Level 1, Interagency Coordination Committee (November 1980)
SR-LO-04012 JSC-16837 LEMSCO-15698	NTIS: 81N32576. Analysis of U.S. Spring Wheat and Spring Barley Periodic Ground Truth (January 1981)
SR-LO-04013 JSC-16838 LEMSCO-15679	Investigation of Boundary Pixel Handling Procedures (December 1980)
SR-IO-04015 NAS 9-14350	BIAS Modeling Experiment (November 1980)
SR-IO-04017 NAS 9-14350	QUASI-Field Purity Experiment (October 1980)
SR-LO-04019 JSC-16844 LEMSCO-14675	USSR Crop Calendar in Support of the Early Warning Project (December 1980)

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REPORTS - 00400

DOCUMENT NOS.

TITLE

SR-PO-04022 NAS 9-15466	NTIS: 81N26527. FINAL REPORT: Field Research on the Spectral Properties of Crop and Soil (November 1980)
SR-PO-04023 NAS 9-15466	NTIS: 81N26528. FINAL REPORT: Research in the Application of Spectral Data to Crop Identification and Assessment (November 1980)
SR-PO-04024 NAS 9-15466	FINAL REPORT: Data Processing Research and Techniques Development (November 1980)
SR-PO-04025 NAS 9-15466	FINAL REPORT: Computer Processing Support (November 1980)
SR-LO-04028 JSC-16484 LEMSCO-15641	Spatial/Color Sequence Proportion Estimation Techniques (December 1980)
SR-JO-04029 JSC-16849	NTIS: 81N33549. A Comparative Study of the Thematic Mapper and Landsat Spectral Bands from Field Measurement Data (March 1981)
SR-L1-04031 JSC-16853 LEMSCO-15683	NTIS: 81N29502. Maximum Likelihood Clustering With Dependent Feature Trees (January 1981)
SR-L1-04032 JSC-16858 LEMSCO-16018	Spring Small Grains Planting Date Distribution Model (March 1981)
SR-X1-04033 NAS 9-15981	Assembly Language Coding for CLASSY (January 1981)
SR-J1-04036 JSC-16861	NTIS: 81N33567. Weighted Ratio Estimation of Large Area Crop Production (February 1981)
SR-P1-04038 NAS 9-15466	NTIS: 82N21647. Soybean Canopy Reflectance as Influenced by Cultural Practices (March 1981)
SR-P1-04039 NAS 9-15466	Canopy Reflectance As Influenced by Solar Illumination Angle (March 1981)
SR-X1-04041 NAS 9-15981	NTIS: 81N33563. Maximum Likelihood Labeling (February 1981)
SR-K1-04043 NAS 9-15421	Crop Classification Using Airborne Radar and Landsat Data (February 1981)



PROJECT: SR

REPORTS - 00400

DOCUMENT NOS.

TITLE

SR-P1-04044 9-15466	NTIS: 82N20591. Effects of Nitrogen Nutrition on the NAS Growth, Yield, and Reflectance Characteristics of Corn Canopy (May 1981)
SR-L1-04045 JSC-17113 LEMSCO-16035	NTIS: 82N21676. Classification of Corn: Badhwar Profile Similarity Technique (March 1981)
SR-X1-04046 NAS 9-15981	NTIS: 81N31600. Improved Version of the Split Routine for CLASSY (March 1981)
SR-X1-04053 NAS 9-15981	NTIS: 81N29503. New Output Improvements for CLASSY (March 1981)
SR-L1-04054 JSC-17128 LEMSCO-15676	NTIS: 81N28498. A Temporal/Spectral Analysis of Small Grain Crops and Confusion Crops (March 1981)
MU-L1-04055 JSC-17119 LEMSCO-16207	NTIS: 82N19608. Interim Catalog Ground Data Summary Data Acquisition Year 1979 (February 1981)
MU-L1-04056 JSC-17120 LEMSCO-16325	NTIS: 81N33546. Interim Catalog Ground Data Summary Data Acquisition Year 1978 (March 1981)
SR-L1-04064 JSC-17121 LEMSCO-16216	NTIS: 81N33573. A Crop Moisture Stress Index for Large Areas and Its Application in the Prediction of Spring Wheat Phenology (March 1981)
SR-E1-04065 NAS 9-15476	NTIS: 82N15480. Development and Evaluation of An Automatic Labeling Technique for Spring Small Grains (August 1981)
SR-L1-04067 JSC-17124 LEMSCO-16021	Estimation of Proportions in Mixed Pixels Through Their Region Characterization (March 1981)
SR-L1-04071 JSC-17127 LEMSCO-15971	NTIS: 81N29497. An Analysis of Haze Effect on Landsat Multispectral Scanner Data (March 1981)
SR-P1-04079 NAS 9-15466	Design and Evaluation of a Pick-Up Truck Mounted Boom for Evaluation of a Multiband Radiometer System (April 1981)
SR-P1-04090 NAS 9-15466	Performance Comparison for Barnes Model 12-1000, EXOTECH Model 100, and Ideas, Inc. Biometer Mark II (April 1981)

PROJECT: SR

REPORTS - 00400

DOCUMENT NOS.

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SR-L1-04094 JSC-17137	Recommended Data Sets, Corn Segments and Spring Wheat Segments, for Use in Program Development (April 1981)
SR-L1-04098 JSC-17139 LEMSCO-16342	Six-Channel Thematic Mapper Simulation (May 1981)
MU-L1-04100 JSC-17365 LEMSCO-16644	PRELIMINARY CATALOG: Ground Data Summary Data Acquisition for 1980 (May 1981)
SR-T1-04112 NAS 9-14689	NTIS: 81N29495. Development of Advanced Acreage Estimation Method (December 1980)
SR-L1-04122 JSC-17402 LEMSCO-14674	NTIS: 82N21682. U.S. Crop Calendar in Support of the Early Warning Project (July 1981)
MU-L1-04123 JSC-17403 LEMSCO-16938	NTIS: 82X74788. Interim Catalog Ground Data Summary Data Acquisition Year 1977 (July 1981)
SR-P1-04125 NAS 9-15466	On the Accuracy of Pixel Relaxation Labeling (July 1981) (Same as SR-P0-00455, DTD. March 1980)
SR-E1-04131 NAS 9-15476	NTIS: 82N16448. Documentation of Computer Procedures for Labeling Spring Grains and Discriminating Between Spring Wheat and Barley Using Landsat Data (August 1981)
SR-J1-04133 JSC-17412	Empirically Determined Calibration Differences Between MDP-LIVES and LACIE Processed Data (June 1981)
SR-E1-04138 NAS 9-15476	NTIS: 82N19635. Notes for Brazil Sampling Frame Evaluation Trip (August 1981)
SR-P1-04139 NAS 9-15466	Linear Polarization of Light by Two Wheat Canopies Measured at Many View Angles (September 1981)
SR-P1-04140 NAS 9-15466	Diurnal Changes in Reflectance Factor Due to Sun-Row Direction Interactions (September 1981)
SR-P1-04141 NAS 9-15466	Application of Computer Axial Tomography to Measuring Crop Canopy Geometry (June 1981)
SR-P1-04148 NAS 9-15466	NTIS: 82N22856. Incorporating Spatial Concept into Statistical Classification of Multidimensional Image Data (August 1981)

PROJECT: SR

REPORTS - 00400

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SR-L1-04158 JSC-17429 LEMSCO-17156	Regression Model Estimation of Early Season Crop Proportions: North Dakota, Some Preliminary Results (January 1982)
SR-P1-04159 NAS 9-15466	A Method for Classifying Multispectral Remote Sensing Data Using Context (1979)
SR-P1-04160 NAS 9-14970	Sampling for Area Estimation: A Comparison of Full-Frame Sampling with the Sample Segment Approach (July 1979)
MU-E1-04161 NAS 9-15476	Analysis of Scanner Data for Crop Inventories - Period Covered November 15, 1979-February 15, 1980 (May 1980)
MU-E1-04162 NAS 9-15476	Analysis of Scanner Data for Crop Inventories - Period Covered February 16, 1980-May 15, 1980 (May 1980)
SR-P1-04163 NAS 9-15466	Analytical Design of Multispectral Sensors (April 1980)
SR-P1-04164 NAS 9-15466	Overcoming Accuracy Deterioration in Pixel Relaxation Labeling (December 1980)
SR-P1-04165 NAS 9-15466	Evaluation of Several Schemes for Classification of Remotely Sensed Data (December 1980)
SR-P1-04166 NAS 9-15466	Contextual Classification of Multispectral Remote Sensing Data Using a Multiprocessor System (April 1980)
SR-P1-04167 NAS 9-15466	Parallel Processing Implementations of a Contextual Classifier for Multispectral Remote Sensing Data (June 1980)
SR-P1-04168 NAS 9-15466	The Development of a Spectral-Spatial Classifier for Earth Observations Data (August 1979)
SR-P1-04169 NAS 9-15466	A Parametric Model for Multispectral Scanners (April 1980)
SR-P1-04170 NAS 9-15466	A Model of Plant Canopy Polarization Response (June 1980)
SR-E1-04174 NAS 9-15476	NTIS: 82N21658. 1981 Argentina Ground Data Collection (October 1981)
SR-P1-04187 NAS 9-15466	NTIS: 82N21670. Spectral Agronomic Relationships of Corn, Soybean, and Wheat Canopies (October 1981)

PROJECT: SR

REPORTS - 00400

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SR-E1-04189 NAS 9-15476	Ground Truth Crop Proportion Summary for U.S. Segment, 1976-1979 (October 1981)
SR-P1-04191 NAS 9-15466	NTIS: 82N21672. Variability of Reflectance Measurement with Sensor Altitude in Canopy Type (November 1981)
SR-P1-04194 NAS 9-15466	Multistage Classification of Multispectral Earth Observational Data: The Design Approach (December 1981)
SR-J1-04195 JSC-17792	Semi-Annual Project Management Report - Program Review Presentation to Level 1 Interagency Coordination Committee (November 1981)
SR-P1-04200 NAS 9-15466	NTIS: 82N22623. Spectral Properties of Agricultural Crop and Soils Measured from Space, Aerial, Field, and Laboratory Sensors (November 1981)
SR-P1-04201 NAS 9-15466	NTIS: 82N21669. A Multiband Radiometer and Data Acquisition System for Remote Sensing Field Research (November 1981)
SR-P1-04202 NAS 9-15466	NTIS: 82N21671. Simulated Response of a Multispectral Scanner Over Wheat As a Function of Wavelength and View/Illumination Direction (November 1981)
SR-E1-04205 NAS 9-15476	The Extension of a Uniform Canopy Reflectance Model to Include Row Effect (December 1981)
SR-K1-04213 NAS 9-15421	Mars X-Band Scatterometer (November 1981)
SR-K1-04214 NAS 9-15421	Coherent Optical Determination of the Leaf Angle Distribution of Corn
SR-K2-04220 NAS 9-15421	Crop Classification Using Multidate/Multifrequency Radar Data (December 1981)
SR-E2-04222 NAS 9-14565	Agronomic Characterization of the Argentina Indicator Region (January 1982)
SR-E2-04224 NAS 9-15476	Cultural and Environmental Effects on the Spectral Development Patterns of Corn and Soybeans--Field Data Analysis (January 1982)
SR-K2-04227 NAS 9-15421	Within-Field Variability of Plant and Soil Parameters (December 1981)
SR-P2-04236 NAS 9-15466	Spectral Estimates of Solar Radiation Intercepted by Corn Canopy (March 1982)

PROJECT: SR

REPORTS - 00400

DOCUMENT NOS.

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SR-X2-04260 NAS 9-16446	Algorithms for Scene Modeling (March 1981)
SR-J2-04271 JSC-17831	Semi-Annual Program Review Presentation to Level 1, Interagency Coordination Committee (April 20, 1982)
SR-P2-04277 NAS 9-16528 NAS 9-15466	LARSPEC Spectroradiometer - Multiband Radiometer Data Formats (May 1982)
SR-P2-04278 NAS 9-15466	Soybean Canopy Reflectance as a Function of View in Illumination Geometry (April 1982)
SR-P2-04292 NAS 9-15466	Key Issues in the Analysis of Remote Sensing Data (June 1981)
SR-J2-04300 JSC-18242	Monitoring Global Vegetation (preprint for the 7th International Symposium W. Lafayette, Ind.) June 1981
SR-P2-04301 NAS 9-15466	Characteristic Variations in Reflectance of Surface Soils (May 1982)
SR-K2-04313	A Three-Part Geometric Model to Predict the Radar Backscatter from Wheat, Corn, and Sorghum (April 1982)
SR-P2-04318 NAS 9-15466	Performance Evaluation and Calibration of Modular Multiband Radiometer for Remote Sensing and Field Research (June 1982)

PROJECT: SR

MINUTES - 00500

DOCUMENT NOS.

TITLE

SR-J0-00503  
JSC-16839

Minutes of the Semi-Annual Formal Project Manager's Review  
(October 7, 1980)

PROJECT: SR

PLANS - 00600

DOCUMENT NOS.

TITLE

SR-J9-C0602  
JSC-16340

Supporting Research Project Implementation Plan  
(December 1979)

SR-J0-C0615  
JSC-16834

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PROJECT: SR

PROCEDURES - 00700

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SR-L1-00720  
JSC-17410  
LEMSCO-16669

User Guide to Spring Small Grain Planting Date Distribution Model (August 1981)

SR-L1-00726  
JSC-17786  
LEMSCO-17105

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JSC-17655  
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**SOIL MOISTURE (SM)**

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PROJECT: SOIL MOISTURE (SM)

INSTRUCTIONS - 00100

DOCUMENT NOS.

TITLE

MU-JO-0100  
JSC-16841

NTIS: 82N19629. Yield Model Development/Soil Moisture  
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MU-JO-0101  
JSC-16842

NTIS: 82N19628. Soil Moisture/Early Warning and Crop  
Condition Assessment Interface Control Document (November  
1980)

DOCUMENT NOS.TITLE

SM-LO-00415 JSC-13775 LEMSCO-14082	Neutron-Meter Calibration for the 1978 Soil Moisture Experiment (January 1980)
SM-LO-00441 JSC-16357 LEMSCO-14600	NTIS: 81N29494. Evaluation of Gravimetric Ground Truth Soil Moisture Data Collected for the 1978 Colby (Kansas) ASME Aircraft Mission (April 1980)
SM-MO-00462 NAS 9-14899	NTIS: 80N30869. Use of Soil Moisture Information in Yield Model (June 1980)
SM-LO-00463 JSC-16366 LEMSCO-14307	NTIS: 82N19632. Agricultural Soil Moisture Experiment, Colby, Kansas, 1978: Measured and Predicted Hydrologic Properties of the Soil (June 1980)
SM-JO-00470 JSC-16372	A Parametric Study of Tillage Effects on Radar Backscatter (July 1980)
SM-GO-00471	Reports on the Remote Measurement of Soil Moisture by Microwave Radiometers at Barc Test Site (August 1980)
SM-LO-00490 JSC-16818 LEMSCO-15330	Comparison of the Characteristics of Soil Water Profile Models (January 1981)
SM-YO-00495 NAS 7-100	Joint Microwave and Infrared Studies for Soil Moisture Determination (September 1980)
SM-KO-04005 NAG5-30	Aircraft Radar Response to Soil Moisture (October 1980)
SM-KO-04006 NAG5-30	1978 Agriculture Soil Moisture (ASME) Data Documentation (October 1980)
SM-AO-04008 NAS 9-14251	Data Documentation for the Bare Soil Experiment at the University of Arkansas (October 1980)
SM-RO-04016	Soil Moisture Project Evaluation Workshop (November 1980)
SM-GO-04018 TM 82002	NTIS: 81N24495. Calculations of the Spectral Nature of the Microwave Emissions From Soil (November 1980)
SM-LO-04021 JSC-16846 LEMSCO-15672	NTIS: 81N29507. Descriptive and Sensitivity Analysis of WATBAL 1, A Dynamic Soil Water Model (March 1981)

PROJECT: SM

REPORTS - 00400

DOCUMENT NOS.

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SM-K1-04035 NAS 9-14052	FINAL REPORT: Agriculture Soil Moisture Experiment (January 1981)
SM-L1-04047 JSC-17115 LEMSCO-15324	Agricultural Soil Moisture Experiment: Evaluation of 1978 Colby Data Collected for Comparative Testing of Soil Moisture Models (May 1981)
SM-K1-04048 NAG 5-30	A Backscatter Model for a Randomly Perturbed Periodic Surface (March 1981)
SM-K1-04049 NAG5-30	An Approximate Model for Backscattering and Emission Land and Sea (March 1981)
SM-G1-04050 TM 82100	NTIS: 81N24494. A Parameterization of Effective Soil Temperature for Microwave Emission (March 1981)
SM-R1-04084	Survey of Applications of Passive Microwave Remote Sensing for Soil Moisture in the USSR (May 1981)
SM-G1-04086	A Computer Program for the Simulation of Heat and Moisture Flow in Soils (April 1981)
SM-L1-04091 JSC-17296	NTIS: 82N21636. Ground Registration of Data from an Airborne Scatterometer (June 1981)
SM-G1-04113	NTIS: 82N22587. Radiometric Measurements Over Bare and Vegetated Fields at 1.4GHz and 5GHz Frequencies (June 1981)
SM-L1-04118 JSC-17152 LEMSCO-16800	NTIS: 82N22593. Ground Registration of Data From an Airborne Multifrequency Microwave Radiometer (MFMR) (October 1981)
SM-G1-04129	Soil Moisture Variation Patterns Observed in Hand County, South Dakota (August 1981)
SM-G1-04173	A Model for Microwave Emission From Vegetation Covered Fields (October 1981)
SM-G1-04178	A Multifrequency Radiometric Measurement of Soil Moisture Content Over Bare and Vegetated Fields (October 1981)
SM-K1-04179 NAG 5-30	The Effects of Vegetation Cover in the Microwave Radiometric Sensitivity to Soil Moisture (March 1982)
SM-K1-04180 NAG5-30	Microwave Emission From a Periodic Soil Surface (November 1981)

PROJECT: SM

REPORTS -- 00400

DOCUMENT NOS.

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SM-K1-04182 NAG 5-30	A Model for the Radar Backscattering Coefficient of Bare Soil (January 1982)
SM-L1-04209 JSC-17798 LEMSC0-17305	Annual Report: Accomplishment of NASA Johnson Space Center Portion of the Soil Moisture Project in Fiscal Year 1981 (January 1982)
SM-K1-04210 NAG5-30	Effects of Vegetation Cover on Radar Sensitivity to Soil Moisture (December 1981)
SM-G1-04218	A Multifrequency Measurement of Thermal Microwave Emission From Soil: The Effect of Soil Texture and Surface Roughness (December 1981)
SM-G2-04221	Estimation of Soil Moisture Storage in the Root Zone from Surface Measurements (January 1982)
SM-L2-04234 JSC-17816 LEMSC0-17502	Fortran Implementation of Friedman's Test for Several Related Samples (February 1982)
SM-K2-04240 NAG 5-30	Active Reflector for Radar Calibration (February 1982)
SM-L2-04247 JSC-17820 LEMSC0-17187	A Comparison of Soil Moisture Characteristics Predicted by the Arya-Paris Model with Laboratory-Measured Data (March 1982)
SM-U2-04274 JSC-18226	Semi-Annual Program Review Presentation to Level 1, Interagency Coordination Committee (April 20, 1982)
SM-R2-04308	Aircraft Active Microwave Measurements for Estimating Soil Moisture (June 1980)
SM-R2-04309	Aircraft Remote Sensing of Soil Moisture and Hydrologic Parameters, Taylor Creek, Florida, and Little River, Georgia, 1979 Data (September 1981)
SM-R2-04314	Volume-Accuracy Relationship in Soil Moisture Sampling (March 1982)
SM-A2-04322 NAS 9-14251	Measurement of Soil Moisture Using Remote Sensing Multisensor Radiation Techniques (May 1982)
SM-R2-04331	Survey of Applications of Passive Microwave Remote Sensing for Soil Moisture in the USSR (May 1982)

PROJECT: SM

PLANS - 00600

DOCUMENT NOS.

TITLE

SM-J0-000613  
JSC-16822  
LEMSCO-15181

NTIS: 81N33575. Experiment Plan: Row and Roughness Effect  
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SM-J1-C0620  
JSC-17108

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SM-J1-C0627  
JSC-17150

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SM-L1-00647  
JSC-17796  
LEMSCO-17289

Plan for Analysis of the Colby Agricultural Soil  
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Near-Surface Soil Moisture Prediction (November 1981)

SM-U1-C0650  
JSC-17802

Soil Moisture Project Implementation Plan for Fiscal Years  
1982 and 1983 (November 1981)

PROJECT: SM

TECHNICAL TRANSLATIONS - 00800

DOCUMENT NOS.

TITLE

SM-J1-00800  
JSC-16859

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PROJECT: SM

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PROJECT: DOMESTIC CROPS (DC)

REPORTS - 00400

DOCUMENT NOS.

TITLE

DC-L1-04051 JSC-17116	NTIS: 81N29511. Evaluation of Large Area Crop Estimation Techniques Using Landsat and Ground-Derived Data (March 1981)
DC-Y1-04069 NSTL/ERL-197	NTIS: 81N33557. An Evaluation of MSS P-Format Data Registration (April 1981)
DC-Y1-04089 NSTL/ERL-196	NTIS: 81N29496. Evaluation of Multiband, Multitemporal and Transformed Landsat MSS Data for Land Cover Area Estimation (April 1981)
DC-Y1-04156	Analysis of Landsat MSS Scene-to-Scene Registration Accuracy (December 1981)
DC-Y1-04211	An Algorithm for Automating the Registration of USDA Segment Ground Data to Landsat MSS Data (December 1981)
DC-Y1-04232	Thematic Mapper Simulator Data Collected Over Eastern North Dakota (April 1982)
DC-J2-04273 JSC-18223	Semi-Annual Program Review Presentation to Level 1, Interagency Coordination Committee (April 20, 1982)

PROJECT: DC

PLANS - 00600

DOCUMENT NO.

TITLE

DC-J1-C0619  
JSC-17109

Domestic Crops and Land Cover Project Implementation Plan  
(1981)

DC-J1-C0626  
JSC-17149

Domestic Crops and Land Cover Project Implementation Plan  
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DC-U1-C0648  
JSC-17799

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